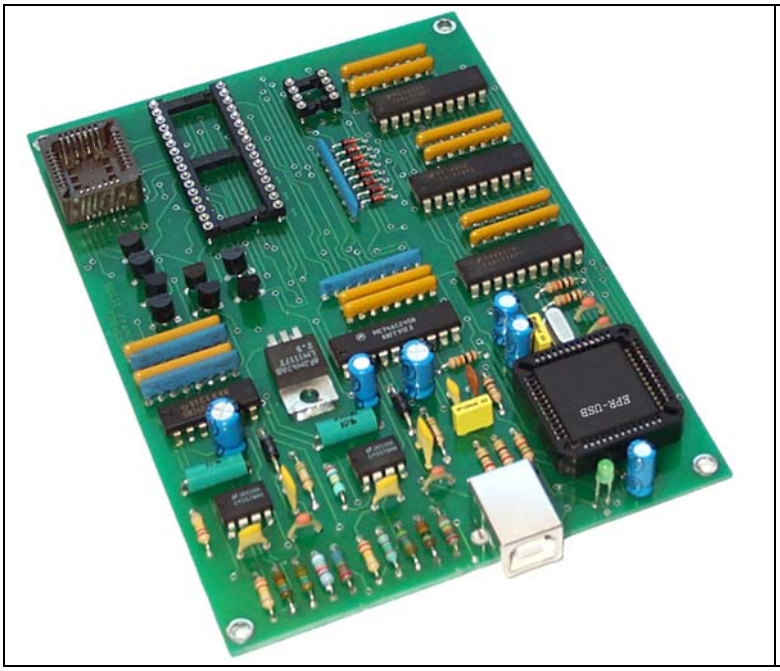
EprUsb / Lpc-32Usb

Programmer for EPROMS, parallels EEPROMS
And FLASHs on USB port

USER MANUAL

(Software release 1.7 (Windows XP 32bits) and software release 2.0 (Windows 7 64 bits)



RoHS

User Manual Release 2.0 (June 2012)

Product contents:

- A programmer.
- A USB cord of type A-B.
- A user manual.
- A CD-ROM contains Epr-Usb and Lpc-32Usb software for Windows 32bits and 64bits and user manual.

Presentation:

The EprUsb and Lpc-32Usb allows programming at the lowest cost a wide range of FLASH memories (28Cxxx, 28Fxxx, 29xxx, 37xxx, 39xxx, 49xxx) in DIP32 and PLCC32 boxes through these two supports soldered on the printed circuit in standard version. It allows reprogramming, for example, the BIOS of motherboards or flash memories for the production of prototypes. It supports standard components (5.0V) and low-voltages (2.7V - 3.3V). The EprUsb and the Lpc-32Usb is protected against all inversely inserted components and short-circuits. It is connected to the USB port of your PC and **does not require any external power supply.** The software works under Windows 98/ME/2000/XP (32bits) for the release 1.7 and works under Windows XP/VISTA/Win7 (64 bits) for the release 2.0.

List of components supported by EprUsb and Lpc-32Usb (Release 1.7 -> 32bits / Release 2.0 -> 64bits) :

AMD	Am27C64	Am27C128	Am27C256	Am27C512	Am27C010	Am27C020	Am27C040	
	Am28F256	Am28F512	Am28F010	Am28F020				
	Am29F010	Am29F010A	Am29F010B	Am29F040	Am29F040A	Am29F040B		
	Am29LV010B	Am29LV040B						
Atmel	AT28C17	AT28C17E	AT28C64B	AT28C256	AT28C256E	AT28C256F	AT28HC256	AT28HC256E
	AT28HC256F							
CATALYST	CAT28F512	CAT28F512I	CAT28F010	CAT28F010I	CAT28F020	CAT28F020I		
FUJITSU	MBM28F010							
ISSI	IS28F010	IS28F020						
MITSUBISHI	M5M28F101							
PMC	PM49FL002T	PM49FL004T	PM49FL008T					
SST	SST27SF256	SST27SF512	SST27SF010	SST27SF020	SST27VF256	SST27VF512	SST27VF010	SST27VF020
	SST28LF040	SST28SF040	SST28SF040A	SST28VF040	SST28VF040A			
	SST37VF512	SST37VF010	SST37VF020	SST37VF040				
	SST39LF512	SST39LF010	SST39LF020	SST39LF040				
	SST39SF512	SST39SF512A	SST39SF010	SST39SF010A	SST39SF020	SST39SF020A	SST39SF040	
	SST39VF512	SST39VF010	SST39VF020	SST39VF040				
	SST49LF002	SST49LF002A	SST49LF002B	SST49LF020	SST49LF020A	SST49LF003A	SST49LF003B	SST49LF030A
	SST49LF004	SST49LF004A	SST49LF004B	SST49LF040	SST49LF040A	SST49LF040B	SST49LF008/A	SST49LF080A
ST-Micro.	M2764A	M27C64A	M27128A	M27256	M27512	M27C1000	M27C1001	M27C2001
	M27C4001	M27C801						
	M28F256	M28F512	M28F101	M28F201				
	M29F010B	M29F040	M29F040B					
SyncMOS	S29C51001B	S29C51001T	S29C51002B	S29C51002T	S29C51004B	S29C51004T		
Textas-Instr.	TMS28F512	TMS28F010	TMS28F020					
Winbond	W39V040A	W39V040FA	W39V040B	W39V040FB	W39V040C	W39V040FC	W39V080A	W39V080FA
	W49F002	W49F002B	W49F002N	W49F002U	W49F020			
	W49F002	W49F002B	W49F002N	W49F002U	W49F020			
	W49V002A	W49V002FA	W49V002FP	W49V002P				W27E512
Xicor	X2816A	X2816B	X2816C	X28C16A	X28C16B	X28C16C	X28HC16	X28C64
	X28HC64	X28C256	X28HC256	X28VC256	X28C512	X28LC512	X28LC513	X28C010
	XM28C010	XM28C020	XM28C040					

1) Instaling JAVA system on your computer (release 2.0 (64bits) only) :

Epr-Usb and Lpc-32Usb programmers need JAVA to run for the release 2.0 (64bits) only. If you install the release V1.7 (32bits) you don't need to install JAVA on your computer.
If Java is already installed on your computer, you can swith the following chapter :

Java Setup

You can find Java on the CD-ROM provided.
To start the install, open the file "Java_V6.0.240.exe".

If you got a message : "Do you want to allow the following program to make changes to this computer ?" , answer « YES »
Java install begins.
Select "Install >" to start the install of java.
It can last for a few minutes.

Java Setup - Welcome
ORACLE
Welcome to Java™
Java provides safe and secure access to the world of amazing Java content. From business solutions to helpful utilities and entertainment, Java makes your internet experience come to life.
Note: No personal information is gathered as part of our install process.
Click here for more information on what we do collect.
Click Install to accept the license agreement and install Java now.
Change destination folder
Cancel
Install >

Once the setup is complete, you receive this message.
Click on « Close » to close the window.

Java Setup - Complete
ORACLE
You have successfully installed Java
Java updates will automatically be downloaded to provide you with the latest features and security improvements.
To change this, see http://java.com/autoupdate
Close

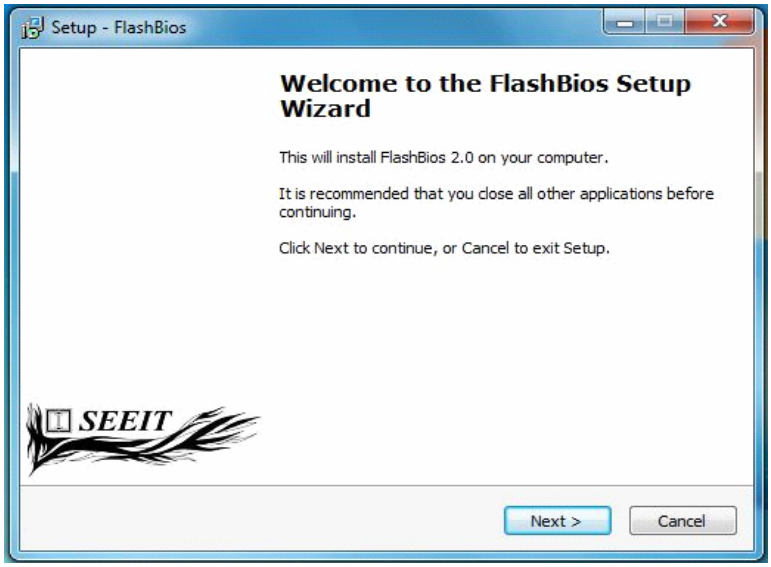
2) Software installation (release 1.7 (32bits) and release 2.0 (64bits) :

Start by installing the software on your hard disk from the CD-ROM supplied. If you do not have a CD-ROM drive, you can download this software from our Internet site from the following URL: http://www.seeit.fr, link « Download ». On the Internet, the software is available in a compressed ZIP file. Extract the files from the zip to your hard disc, and then run the file « Setup.exe ». Follow the software installation procedure.

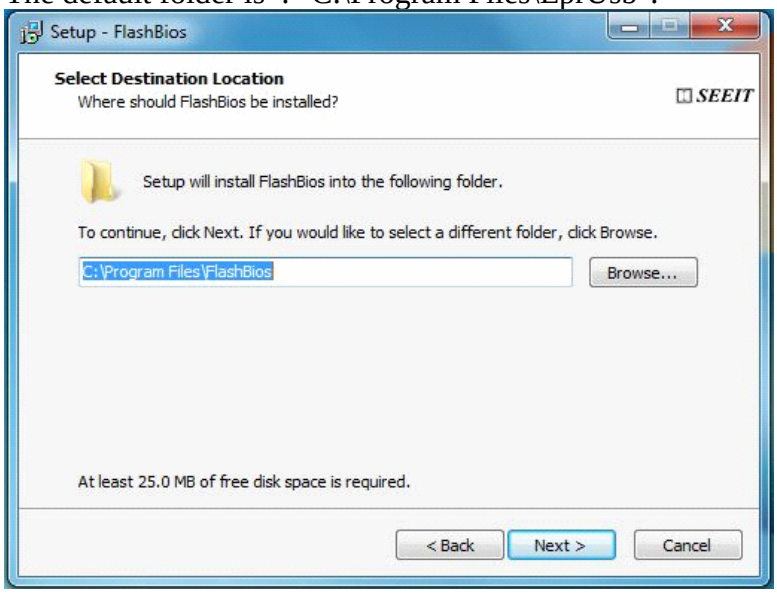
If you got a message "Do you want to allow the following program to make changes to this computer ?" , answer « YES »

Software install begins.
Select your language and click on « OK »

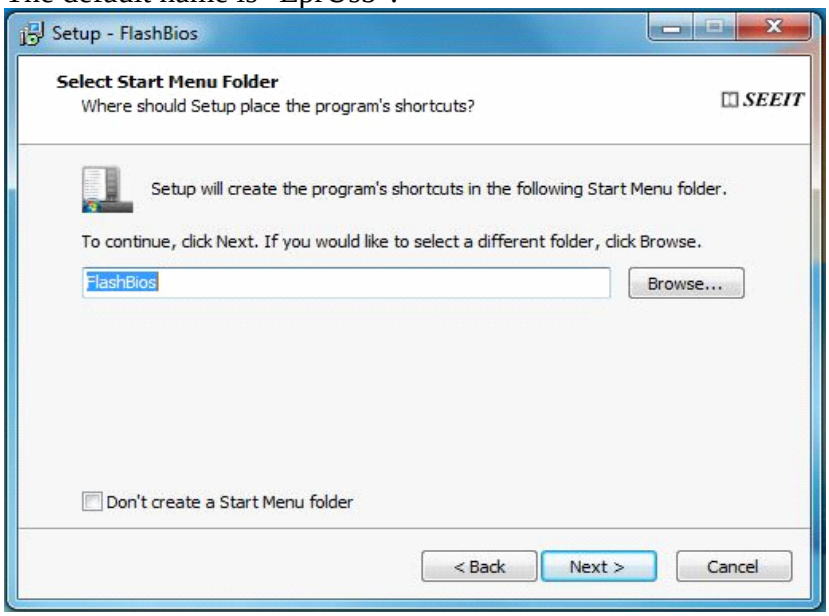
Choose "Next"


Setup - FlashBios
Welcome to the FlashBios Setup Wizard
This will install FlashBios 2.0 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
SEEIT
Next >
Cancel

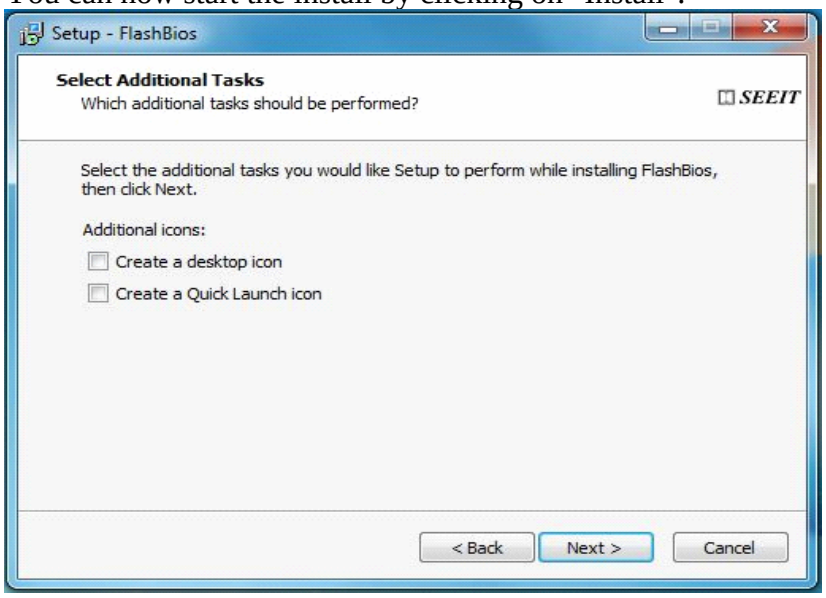
Choose the folder where you want FlashBios to be installed, then click on "Next".
The default folder is : "C:\Program Files\EprUsb".


Setup - FlashBios
Select Destination Location
Where should FlashBios be installed?
SEEIT
Setup will install FlashBios into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\FlashBios
Browse...
At least 25.0 MB of free disk space is required.
< Back
Next >
Cancel

Choose the name of the folder for the Start menu shortcuts and click on "Next".
The default name is "EprUsb".


Setup - FlashBios
Select Start Menu Folder
Where should Setup place the program's shortcuts?
SEEIT
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
FlashBios
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel

You can have additional shortcuts. Choose your options and click on "Next".
You can now start the install by clicking on "Install".


Setup - FlashBios
Select Additional Tasks
Which additional tasks should be performed?
SEEIT
Select the additional tasks you would like Setup to perform while installing FlashBios, then click Next.
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Next >
Cancel

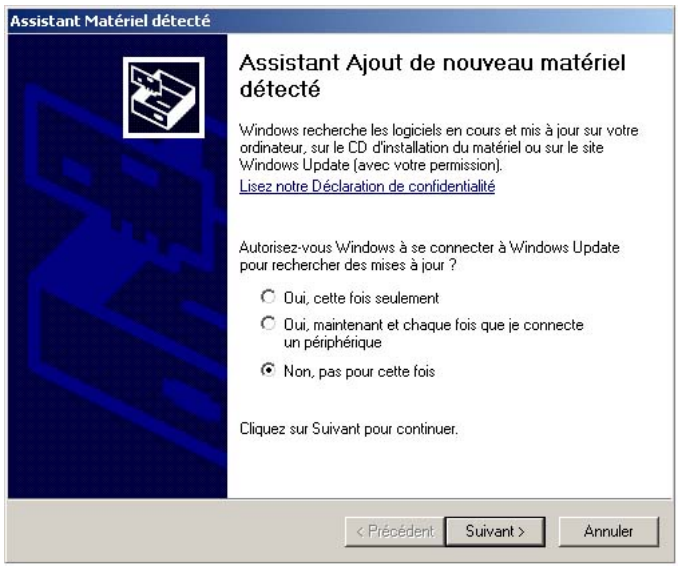
Click on "Finish" to complete the installation.

Setup - FlashBios
Completing the FlashBios Setup Wizard
Setup has finished installing FlashBios on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
SEEIT
Finish

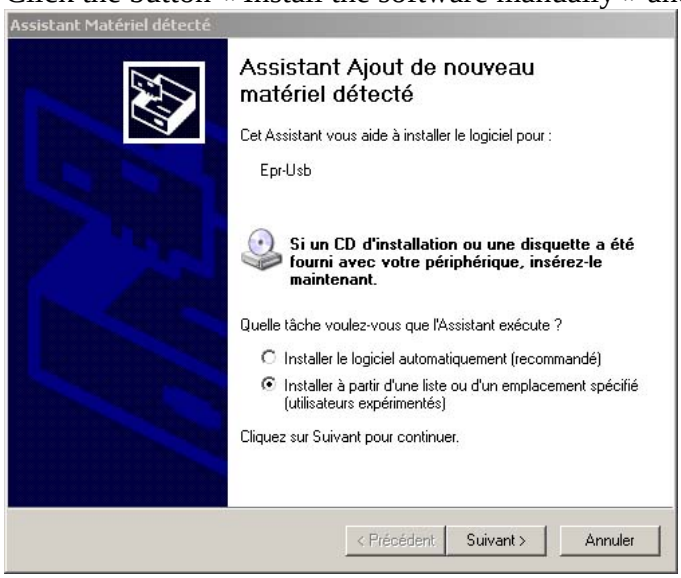
3) USB driver installation (release 1.7 (32bits) only :

Now, connect the programmer to a USB port of your PC.

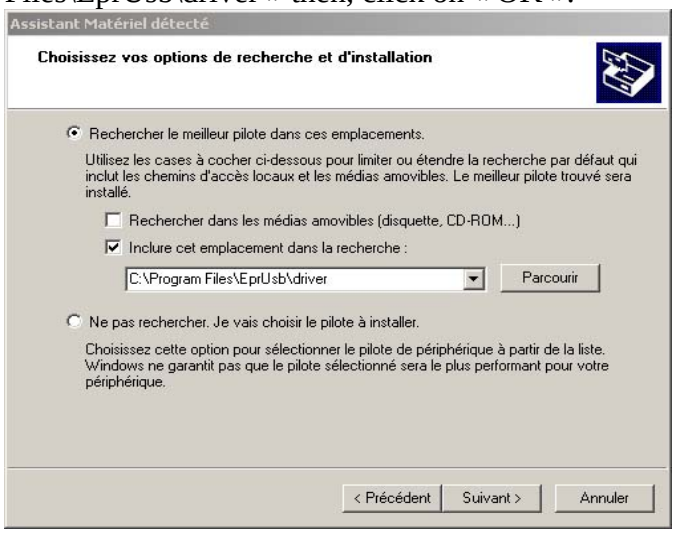
Windows opens a new window « New hardware detected ».
Click the button « Not this time » and click on « Next ».


Assistant Matériel détecté
Assistant Ajout de nouveau matériel détecté
Windows recherche les logiciels en cours et mis à jour sur votre ordinateur, sur le CD d'installation du matériel ou sur le site Windows Update (avec votre permission).
Lisez notre Déclaration de confidentialité
Autorisez-vous Windows à se connecter à Windows Update pour rechercher des mises à jour ?
Oui, cette fois seulement
Oui, maintenant et chaque fois que je connecte un périphérique
Non, pas pour cette fois
Cliquez sur Suivant pour continuer.
< Précédent
Suivant >
Annuler

Click the button « Install the software manually » and click on « Next ».


Assistant Matériel détecté
Assistant Ajout de nouveau matériel détecté
Cet Assistant vous aide à installer le logiciel pour :
Epr-Usb
Si un CD d'installation ou une disquette a été fourni avec votre périphérique, insérez-le maintenant.
Quelle tâche voulez-vous que l'Assistant exécute ?
Installer le logiciel automatiquement (recommandé)
Installer à partir d'une liste ou d'un emplacement spécifié (utilisateurs expérimentés)
Cliquez sur Suivant pour continuer.
< Précédent
Suivant >
Annuler

When Windows asks you to indicate the access path of the file, go to the folder « C:\Program Files\EprUsb\driver » then, click on « OK ».

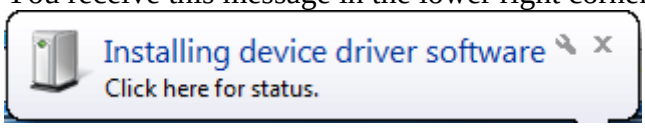

Assistant Matériel détecté
Choisissez vos options de recherche et d'installation
Rechercher le meilleur pilote dans ces emplacements.
Utilisez les cases à cocher ci-dessous pour limiter ou étendre la recherche par défaut qui inclut les chemins d'accès locaux et les médias amovibles. Le meilleur pilote trouvé sera installé.
Rechercher dans les médias amovibles (disquette, CD-ROM...)
Inclure cet emplacement dans la recherche :
C:\Program Files\EprUsb\driver
Parcourir
Ne pas rechercher. Je vais choisir le pilote à installer.
Choisissez cette option pour sélectionner le pilote de périphérique à partir de la liste. Windows ne garantit pas que le pilote sélectionné sera le plus performant pour votre périphérique.
< Précédent
Suivant >
Annuler

After installing the driver, click on « Finish ».

4) USB driver installation (release 2.0 (64bits) only :

In order to communicate with the programming card, you have to install the drivers of the card. Without it, the programmer can't work.
The software needs two drivers, and the install is the same for each of them.
To start the drivers installation, plug the programming card to your computer with an USB cable.

You receive this message in the lower right corner of your screen.



Wait until this message becomes:

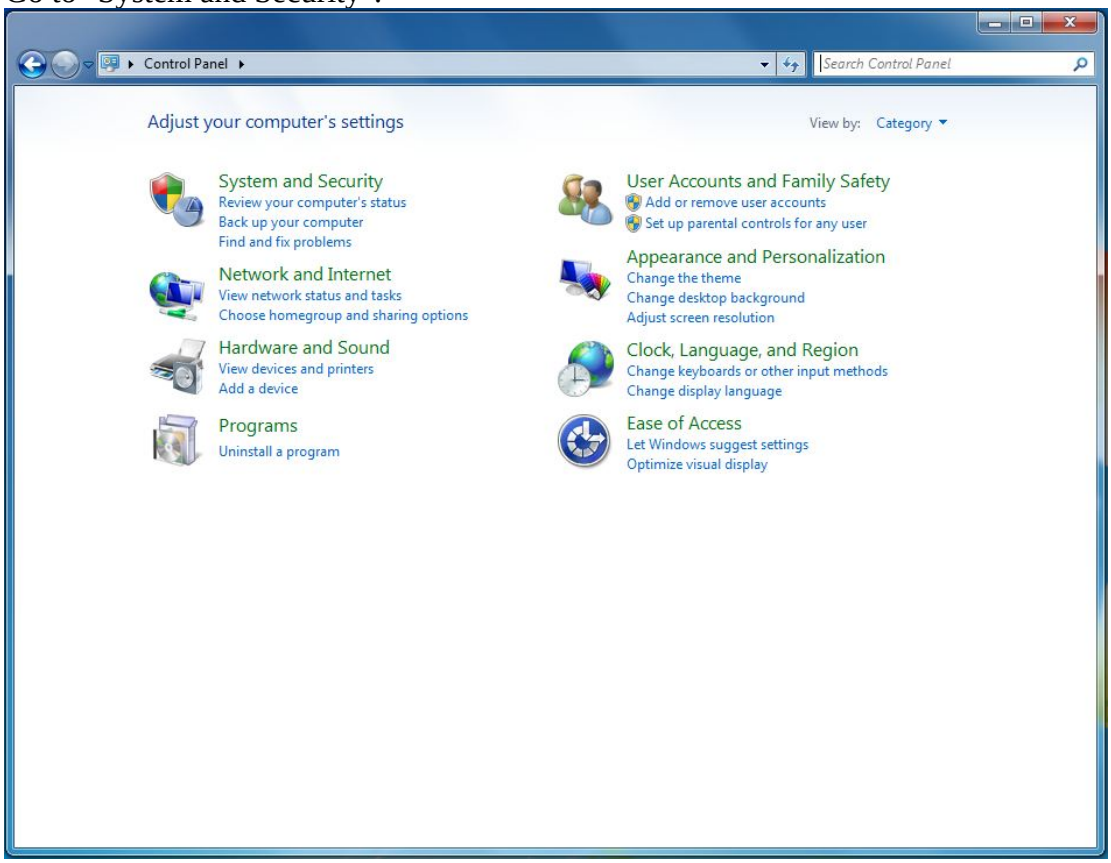
Go to the Start menu then "Control Panel"

Go to the "Device Manager". There are two ways to go to the "Device Manager", depending of your display.

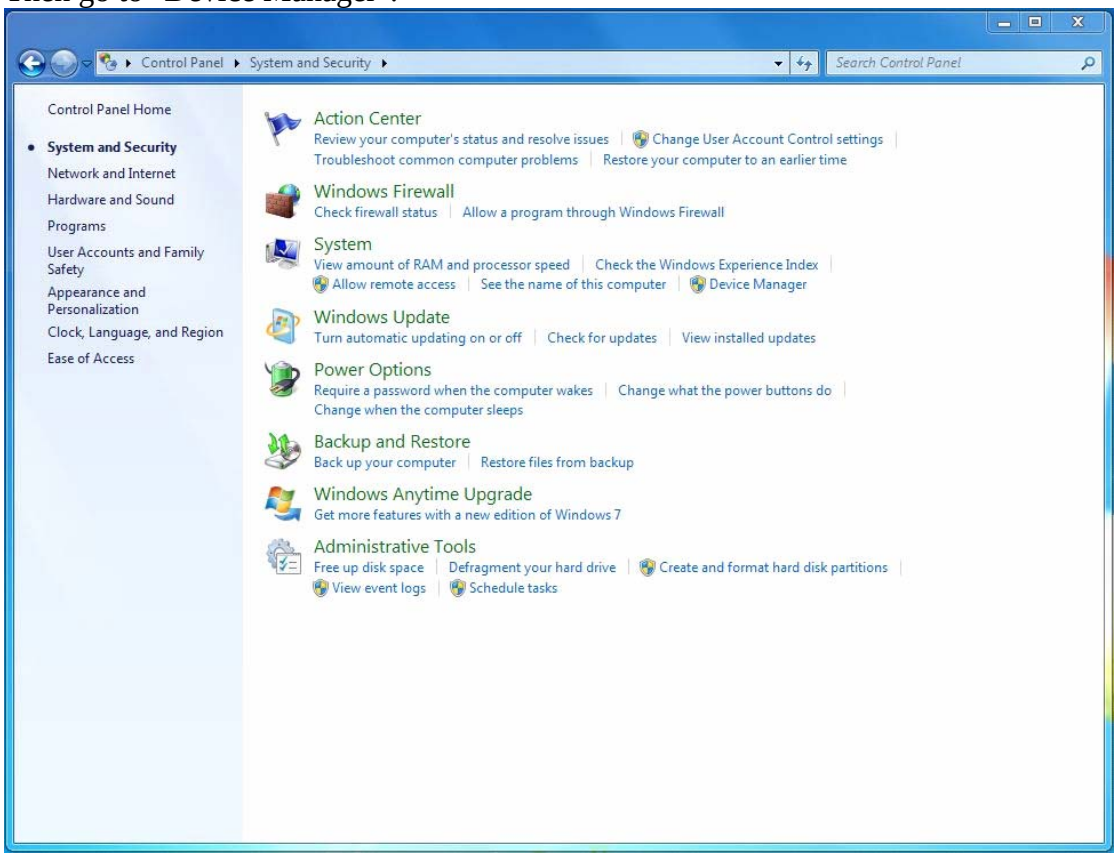
Display 1 :

If your "Control Panel" looks like that :

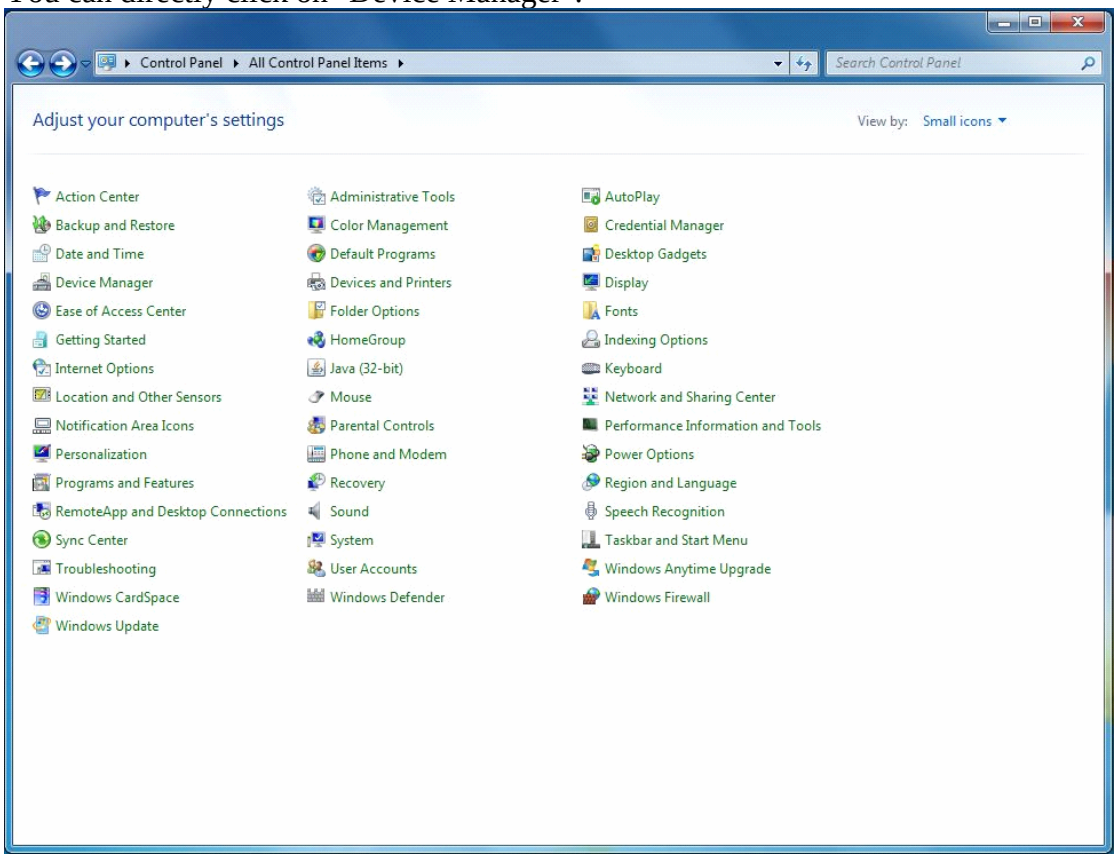
Go to "System and Security".



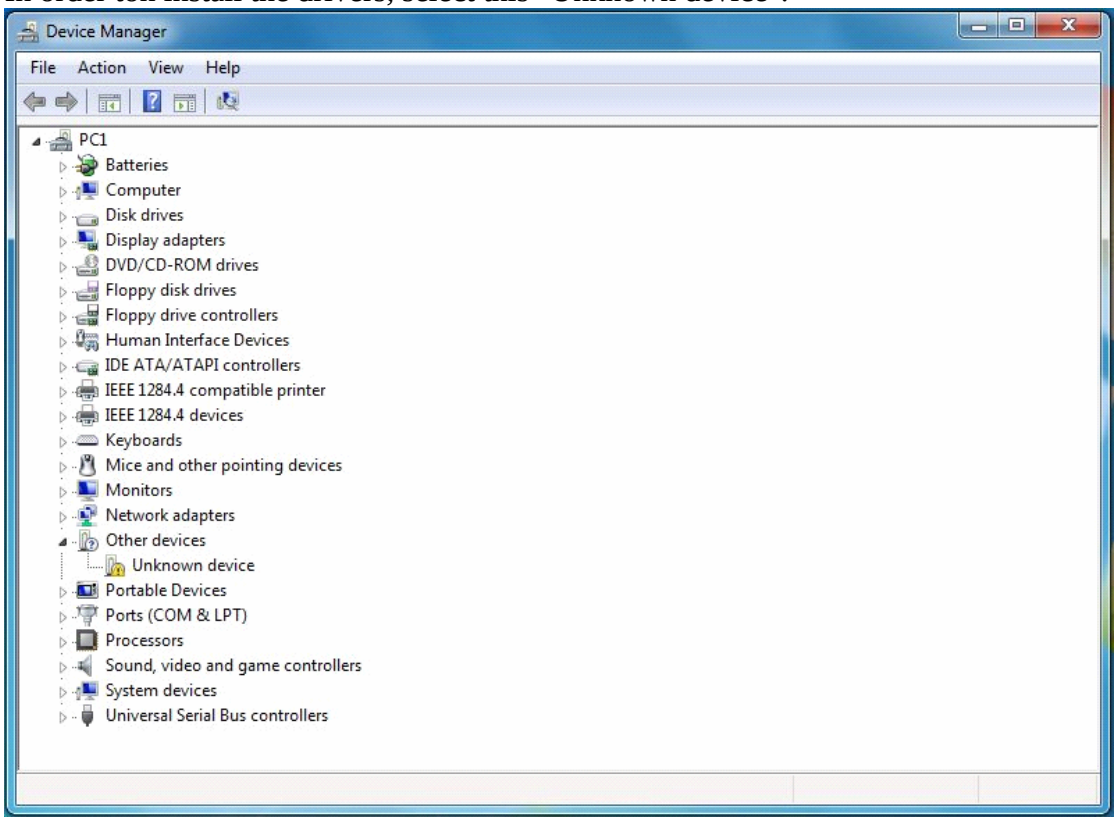
Then go to "Device Manager".



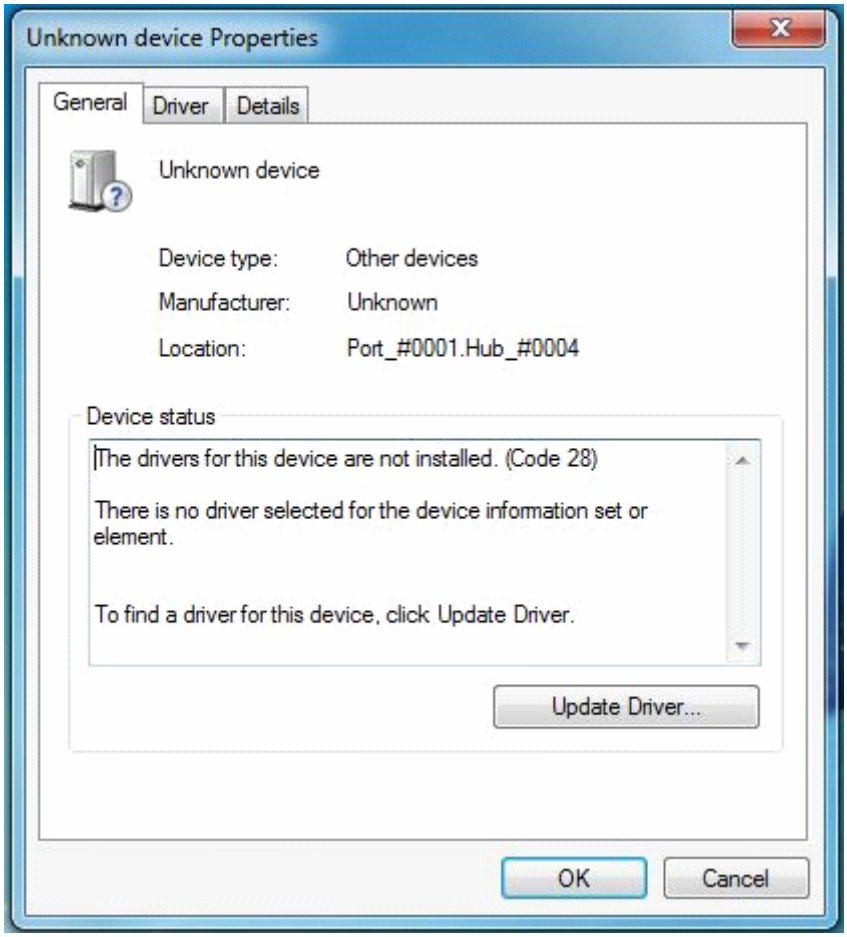
Display 2 :
If your "Control Panel" looks like that :
You can directly click on "Device Manager".



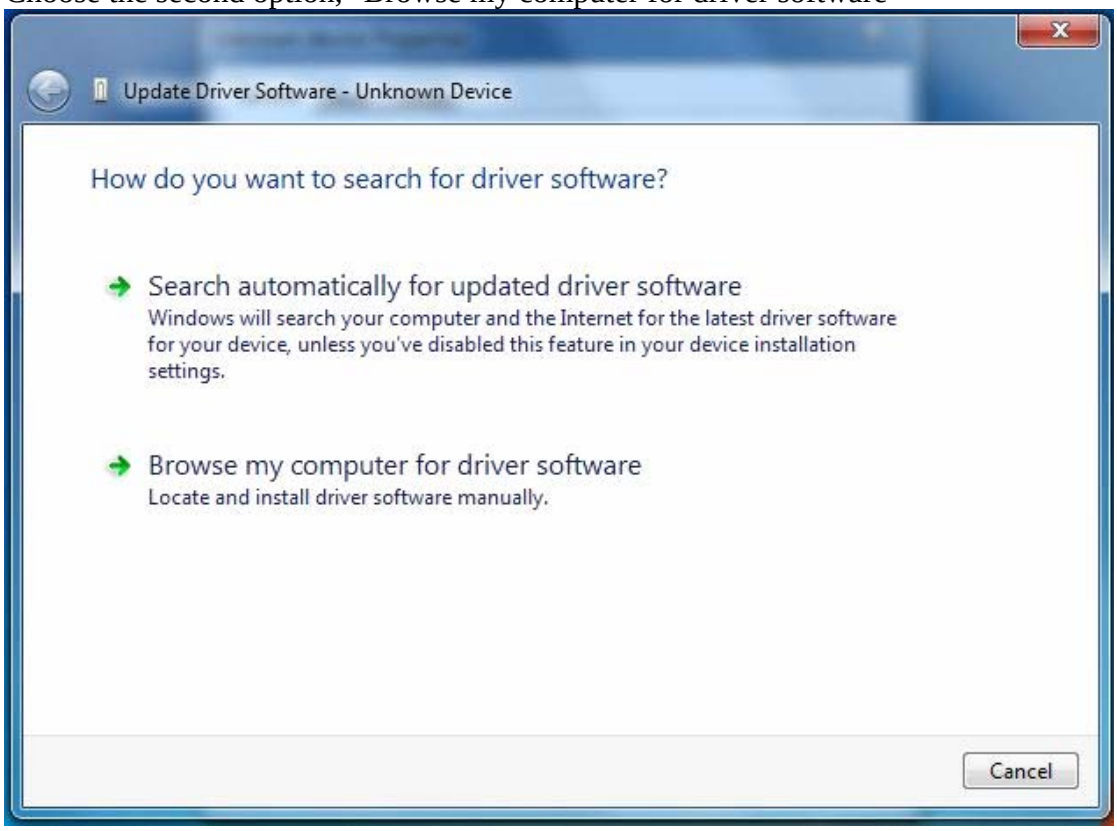
Once you are in the "Device Manager", you can see this screen :
Your list can change from our exemple, it depands of your hardware.. However, you must have a "Unknown device" in this list : it’s the programming card
In order ton install the drivers, select this "Unknown device".



The values for the location can be differents from ours. Click on "Update driver..."



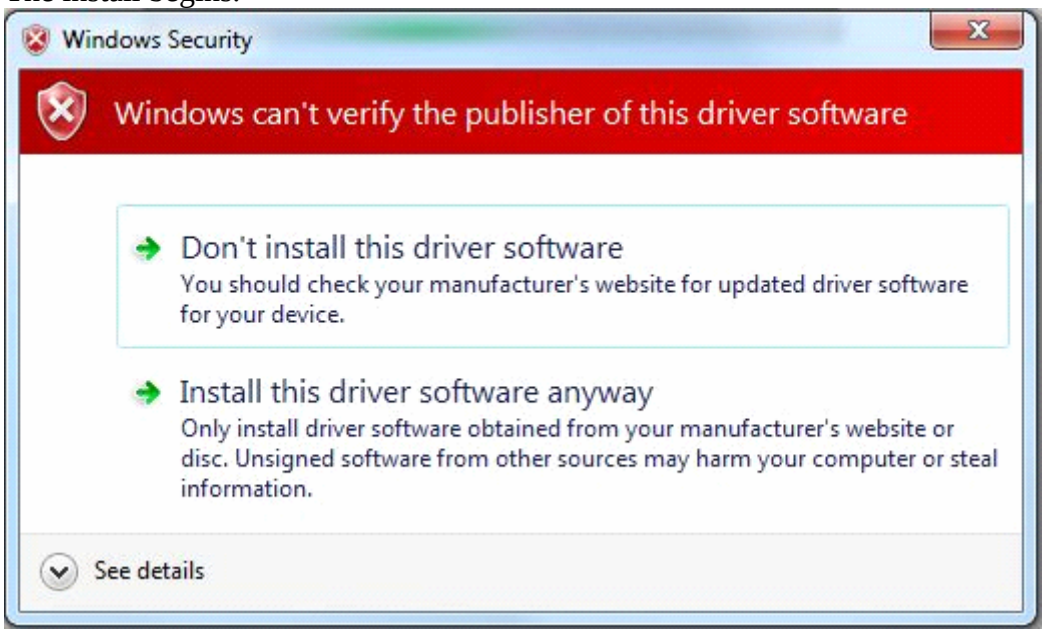
Choose the second option, "Browse my computer for driver software"


Update Driver Software - Unknown Device
How do you want to search for driver software?
Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.
Browse my computer for driver software
Locate and install driver software manually.
Cancel

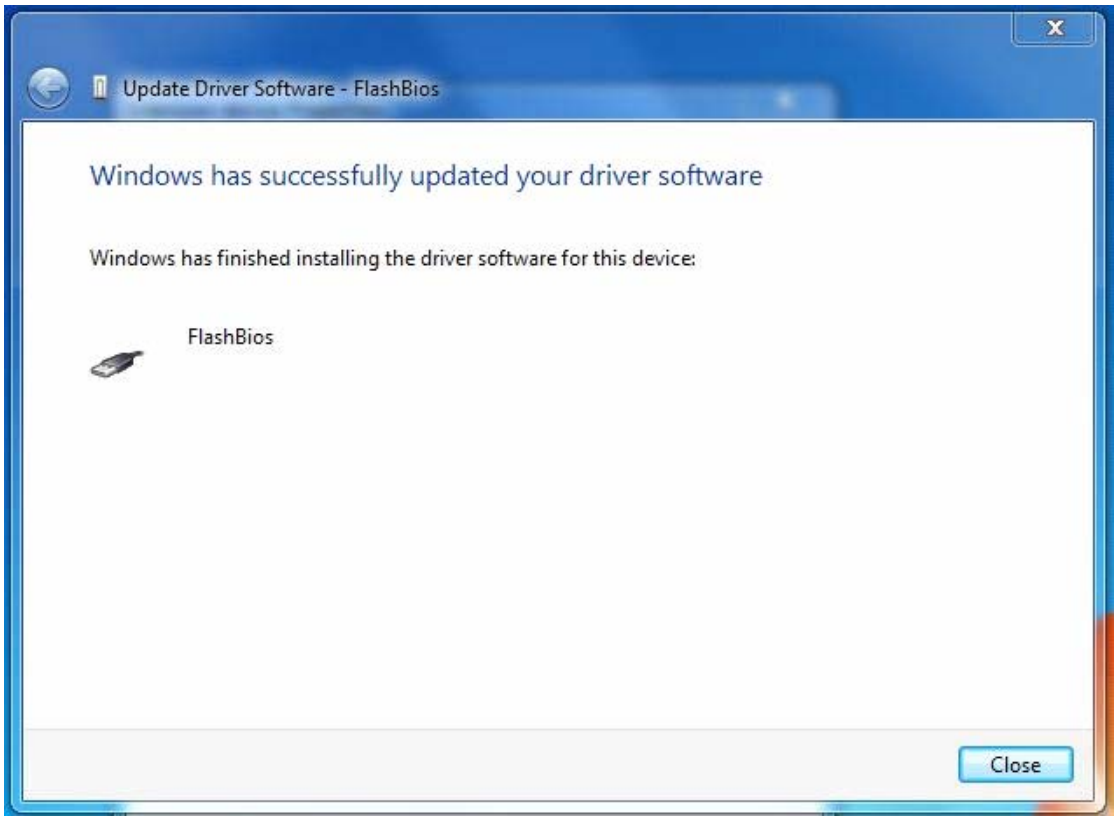
Click on "Browse...", and select the "driver" fodler located in the EprUsb folder where you have installed the software. In our example , we didn’t change the default folder, so the "driver" folder is located at "C:\Program Files\EprUsb\driver".
Click on Next.

Update Driver Software - Unknown Device
Browse for driver software on your computer
Search for driver software in this location:
C:\Program Files\FlashBios\driver
Browse...
Include subfolders
Let me pick from a list of device drivers on my computer
This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
Next
Cancel

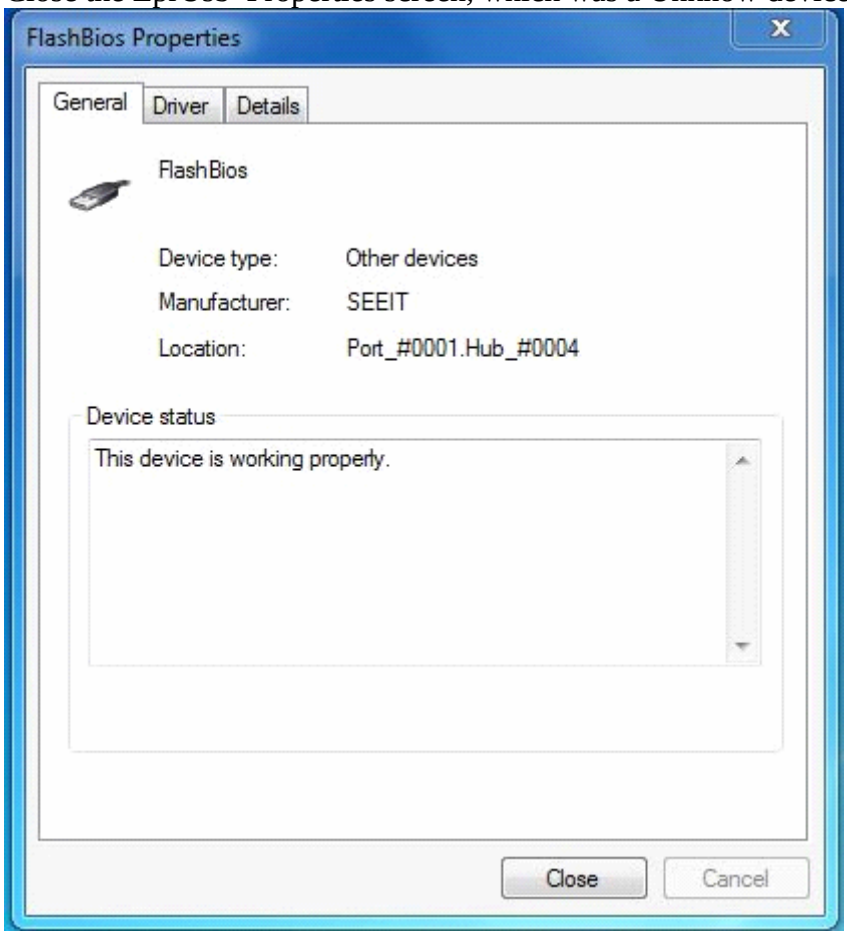
Choose the second option, "Install this driver software anyway".
The install begins.


Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

Click on "Close" to finish the install of the first driver


Update Driver Software - FlashBios
Windows has successfully updated your driver software
Windows has finished installing the driver software for this device:
FlashBios
Close

Close the EprUsb Properties screen, which was a Unknow device just before.

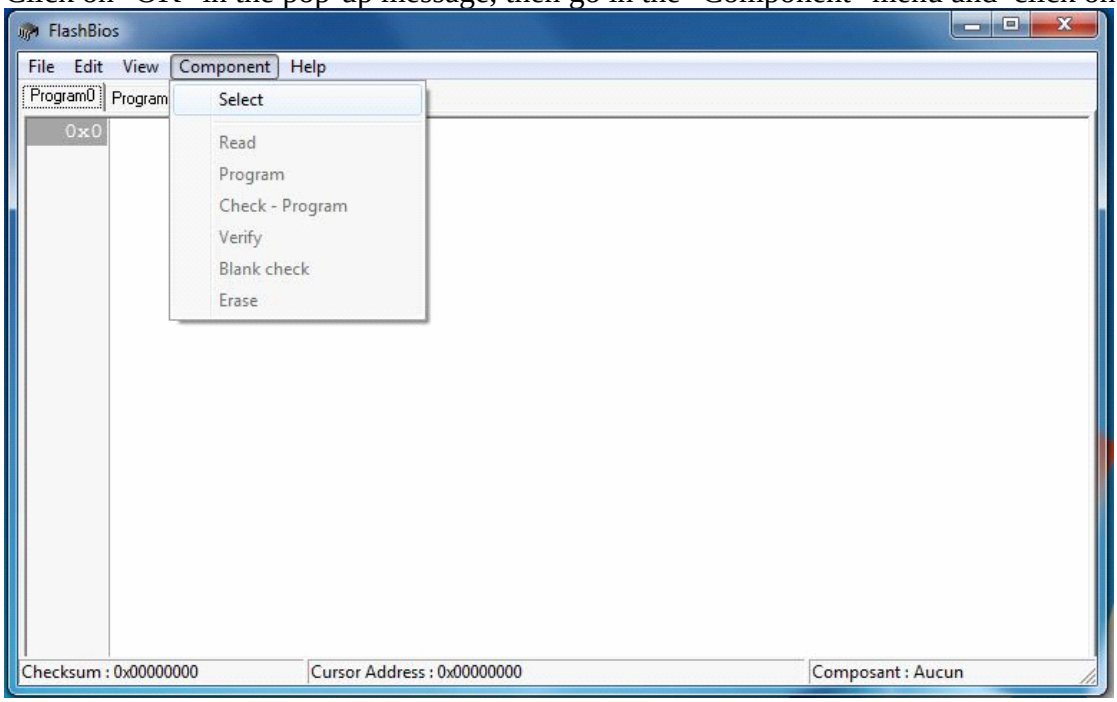


You are now back on the Device Manager : the Unknow device disappear from the list. Instead, EprUsb appeared.

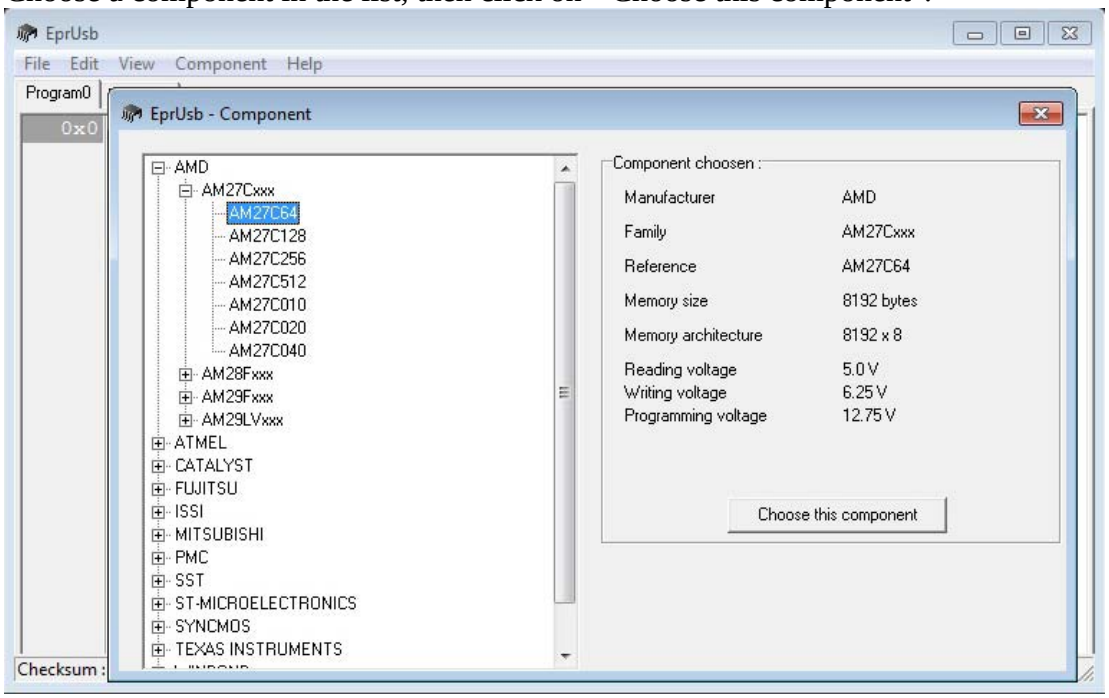
5) First open of the software (release 1.7 (32bits) and release 2.0 (64bits) :

Run the software EprUsb.

Click on "OK" in the pop-up message, then go in the "Component" menu and click on "Select".



Choose a component in the list, then click on "Choose this component".



After choosing a component and for the first open only, Windows ask you to install the second USB driver.
In this case follow the same procedure as before:
« 3) USB driver installation (release 1.7 (32bits) only : »
Or :
« 4) USB driver installation (release 2.0 (64bits) only : »

6) Software procedure (release 1.7 (32bits) and release 2.0 (64bits):

Insertion and extraction of a component:

It is preferable to insert the component on its support only after starting the software and selecting a component from the list. Similarly, you must extract your component before quitting the software or changing the component reference in the list.

The components must be oriented correctly during their insertion, even though the programmer is protected against short-circuits and insertions errors, you may damage your component if you do use it in the right direction. The pin 1 is identified on the printed circuit by the number « 1 ». On the component, the pin « 1 » is marked either by a by a point on the PLCC32 components, or by a notch on top of the component.

For extracting a component from the PLCC32 without damaging it, use preferably a small flat screwdriver of 1 mm width. Slide the flat of the screwdriver under the square component from one of the corners of the support and apply a slight leverage. Place the screwdriver in the same way under the opposite corner and apply a slight leverage. The component should be extracted without forcing.

Erasing a component:

The menu « Component\Erase » is sometimes unavailable. This signifies that the component cannot be erased.
The EPROMs of type 27Cxxx can be erased only by using an EPROM eraser based on UV such as the LER-121A.
The parallel EEPROMs of type 28Cxxx and 29Cxxx reprogrammable directly without first erasing them.
The FLASHs of type 28Fxxx, 29Fxxx, 39Fxxx, 49Fxxx can be erased electrically using the menu « Component\Erase ».

Loading a file:

The menu « File\Load » allows loading a source file in the window of the tab « Program0 » before going ahead with a programming. This window is called the « Buffer Program ». It serves as the intermediary between the loading of the file source code into the software, then from the software to the component that has to be programmed.

When you use the « File\Load », if the file that you wish to load does not appear in the window « Load », select « All files » in the menu « File Type » in the bottom of the window. After selecting the file, click on « Open ».

If the file loaded into the buffer is of a size that does not correspond to the type of component selected, a warning message will be displayed on the screen. If the file loaded is of a larger size, it will be truncated. If the file is of a smaller size, the remaining space of the buffer shall be loaded with the value 0xFF. Normally, the size of the file loaded must correspond to the size of the component.

The two buffers “Program0” and “Program1”:

You can use indifferently one or other of the two tabs for loading a file on the screen. These two tabs « Program0 » and « Program1 » are provided so that one may compare if required two files side by side through the menu « Edit\Compare ». For example, you can select the buffer « Program0 » for loading your source code on the screen. You may then program your component. Then you load the buffer « Program1 » for reading your component. You can then compare the two buffers.

Programming a component:

After this, run the EprUsb software. A window is displayed asking you to select a component.
Use the menu « Component\Select ». Highlight a component, then click on « Select this component ».
Insert the component on the support.
Open your file using the menu « File\Load ».
If you are not sure that your component is blank, use first the menu « Component\Blank Check ».
Start the programming of the component using the menu « Component\Program ».
Verify the programming of your component using the menu « Component\Verify ».
If the verification is « OK », your component has been programmed successfully.

SEEIT
Programmers